

Controlled v. Uncontrolled environment:

- Not addressed.

Measurement and compliance procedures:

- Actual environmental review would be too burdensome for the 625,000 licensees and the Commission staff. The FCC should promulgate in Part 97 a "tabular chart showing the calculated field intensities at various distances from antennas having directive patterns, driven by transmitters of various power output levels." Also, "a few practical questions about electromagnetic radiation safety could be included in each amateur licensing examination" and each applicant could be required to certify on the "basic licensing form, that he/she has read the FCC guidelines, understands them, and agrees to comply." Under this scheme, amateurs would follow a policy of "prudent avoidance" which AARL publications now advocate (4-6).

Categorical exclusions:

- Amateurs, heretofore exempted from environmental review requirements, mostly engage in operations that would not exceed the 1992 standard. However, a VHF 100 watt "vehicular mobile installation" may well produce "higher fields inside;" "hand-held transceivers" may produce "significant localized fields near the antenna," as may facilities that "employ indoor antennas in the face of zoning regulations," or a few who engaged in specialized activities such as "moon-bounce" communications (3-4).

Transitional procedures:

- Not addressed.

State Preemption:

- Not addressed.

Other issues:

- Not addressed.

DEPARTMENT OF DEFENSE
Comments on RF Environmental Guidelines Amendments
(August 12, 1993)

Interest: Submitted by the DOT Director for Safety and Occupational Health Policy.

Adoption of 1992 ANSI/IEEE Standard:

- The Department of Defense (DOD) generally supports the proposed action to adopt ANSI/IEEE C95.1-1992 RF exposure guidelines which replace ANSI C95.1-1982. DOD recommends that the FCC adopt the RF exposure guidelines as published and as defined in ANSI/IEEE C95.1-1992. DOD applauds the FCC for its leadership in bringing their regulatory requirements into congruence with the most recently developed RF exposure guidelines (2).

Induced currents:

- Not addressed.

Contact currents:

- Not addressed.

Controlled v. Uncontrolled environment:

- DOD expresses concern that quoted NPRM paragraph 13 language (involving "exposure of the general public") may cause overbroad application of the uncontrolled environment standard, which should be "based on the type of location involved" and not occupational/general public distinctions (1).

Measurement and compliance procedures:

- Not addressed.

Categorical exclusions:

- DOD objects to language quoted from NPRM paragraphs 16, 18 and footnotes 16 and 20 as suggesting intrusion of an occupational/general public distinction not intended by the standard (which relies on knowing exposure) that would expand application of the uncontrolled environment to too many low power hand-held devices. The exclusion for controlled environments applies to devices under the control of an aware user, while the exclusion for uncontrolled environments applies

to devices without control or knowledge of the user. DOD views these definitions in a straightforward manner as applying to an individual who can reasonably be expected to be aware that the device being used emits an RF signal. DOD considers the key point as simply awareness on the part of the user and not other conditions, such as technical training or status as an occupational worker or member of the general public (1-2).

Transitional procedures:

- Not addressed.

State preemption:

- Not addressed.

Other issues:

- Not addressed.

DOTY-MOORE TOWER SERVICES, INC.
Comments on RF Environmental Guidelines Amendments
(January 10, 1994)

Interest: Cedar Hill, Texas "complete tower service" company (which notes a relationship with commenter Maxwell Safety Products, Ltd.) follows up on May 17, 1993 meeting with the FCC's Dr. Cleveland.

Adoption of ANSI/IEEE Standard:

- Not directly addressed; reports on studies it performed in the Dallas/Ft. Worth area of multiple emitter environments, involving solely "pagers, cellular and two-way antennae," that purport to measure compliance with the ANSI/IEEE C95.1-1992 MPE (1-2, plus attached charts). "Any claims that these types of systems in multiple environments remain in compliance are simply not true" (2).

Induced currents:

- Asserts there are "virtually no induced currents to worry about," since the facilities' frequencies are above 100 MHz (2).

Contact currents:

- Not addressed.

Controlled v. Uncontrolled environment:

- Not addressed.

Measurement and compliance procedures:

- In multiple emitter environments, it becomes nearly impossible to coordinate participation of the owners of these systems to shut down power, and the primary responsibility should lie with the landlord/site manager in these cases (1).
- Limiting access to the rooftops to individuals who shall be supplied with the necessary protective equipment helps to lessen the liability of all the parties concerned (1).

Categorical exclusions:

- Doty-Moore's "antenna farm" study indicated "virtually every locale within the vicinity presents RF levels in excess of the C95.1-1992 MPE level at all times"

from which they conclude these are "potentially hazardous environments" for "non-technical personnel" (1).

Transitional procedures:

- Not addressed.

State Preemption:

- Not addressed.

Other issues:

- Not addressed.

DU TREIL, LUNDIN & RACKLEY, INC.
Comments on RF Environmental Guidelines Amendments
(January 25, 1994)

Interest: Electronics engineering consultants to the communications industry.

Adoption of ANSI/IEEE Standard:

Induced currents:

- Du Treil suggests that the FCC has not fully considered the impact on broadcasters of having a standard that includes induced and contact current limitations not considered in previous standards. The ANSI/IEEE Standard would require extensive measurements of induced and contact currents, and compliance with the ANSI/IEEE Standard MPEs does not imply compliance with the induced and contact current limit (3).
- Data illustrate that a single FM antenna must be elevated high above ground level simply to meet the de facto MPEs for an uncontrolled environment. Most FM stations will have a problem meeting the uncontrolled environment de facto MPEs because most FM antennas are below the necessary heights. Multiple-use sites will have great difficulty in this regard (5).
- Land mobile stations may also be of concern because their transmitting time may exceed the 1 second averaging-time for induced currents. Du Treil suggests further FCC studies to carefully determine the impact of these new induced and contact current limits, and how the ANSI/IEEE Standard MPEs will be met (6).

Contact currents:

- Not addressed.

Controlled v. Uncontrolled environment:

- Du Treil is concerned about apparent inconsistencies in the definitions of controlled and uncontrolled environments, which appear to turn on the level of knowledge an individual has about his exposure (2).
- Du Treil suggests that if areas are defined as controlled or uncontrolled, the definition should be more specific. For example, a controlled environment

should be defined as an area restricted from access by all except authorized personnel, such as the fenced area around a tower (2).

- Adoption of the ANSI/IEEE standard will result in the de facto adoption of the MPEs for an uncontrolled environment because people will feel compelled to satisfy the uncontrolled standard (3).
- Given the above, the FCC should conduct additional research to ascertain the actual impact on broadcasters (3).

Measurement and compliance procedures:

- Not addressed.

Categorical exclusions:

- Not addressed.

Transitional Procedures:

- Not addressed.

State Preemption:

- Not addressed.

E.F. JOHNSON COMPANY
Comments on RF Environmental Guidelines Amendments
(January 25, 1994)

Interest: Designer and manufacturer of radio communications products for commercial and public safety use.

Adoption of 1992 ANSI/IEEE Standard:

- Generally agrees with FCC's action to update its regulations to conform to recent changes in the ANSI guidelines as the ANSI committee represents the most competent of the expert scientists and bio-effect specialists. The FCC should base its decisions on the scientific evidence available from ANSI and not bow to unproven assertions. (2-3, 8-9)

Induced currents:

- Not addressed.

Contract Currents:

- Not addressed.

Controlled v. Uncontrolled environment:

- Concerned that the controlled/uncontrolled dichotomy may lead some to conclude that exposure levels appropriate in controlled environments are dangerous. (4)
- The FCC should specify measures to ensure that those in controlled environments are properly notified of their potential exposure, focusing on exposure as a basic element of employment or other commercial condition. (5-6)

Measurement and compliance procedures:

- Concurs with TIA that the effective date for compliance with the rules for portable radio units be two years after approval of an appropriate SAR measurement standard. (8)
- For devices approved only for use in controlled environments, applicants should be required to state that they have taken steps specified in the rules to ensure notification of exposure. (8-9)

- Where the equipment is acceptable for use in uncontrolled environments, the equipment manufacturer should be required to demonstrate compliance with exposure guidelines. (9)
- Recommends that the FCC adopt regulations that govern devices with radiating elements within 2.5 cm of the body based upon radiating power and not SAR. (6)

Categorical exclusions:

- Supports the low power exclusion proposed by the FCC as a matter of administrative convenience but believes the FCC's guidelines should cover spectrum above 1.5 GHz. (6-7)
- Favors the continuation of other categorical exclusions where such exclusions are otherwise supported by scientific evidence and compliance with FCC mandated notification is achieved. (7)

Transitional procedures:

- Recommends that the majority of equipment in use today, particularly the mobile and portable units employed in the land mobile industry, be grandfathered. (8)

State preemption:

- Not addressed.

Other issues:

- Not addressed.

ELECTROMAGNETIC ENERGY POLICY ALLIANCE
Comments on RF Environmental Guidelines Amendments
(January 25, 1994)

Interest: None given.

Adoption of ANSI/IEEE Standard:

- EEPA supports adoption of the ANSI standard because (1) it is based on the most recent review of scientific literature; (2) the large and diverse membership of the IEEE committee reflects a more accurate consensus of the scientific community than smaller panels of selected experts; and (3) the ANSI standards surpass other recommendations in addressing the practical problem of implementation (1-2).
- EEPA also notes that the C95.1-1992 MPE is consistent with well-established biologically-based national and international limits for infrared lasers (8-9).

Induced currents:

- EEPA urges the FCC to adopt a reasonable and practical approach to the regulation of exposure to contact and induced currents, and urges the adoption of definitive compliance methods, and the development, in cooperation with the industry, of accurate, repeatable and uniform measurement techniques that broadcasters and others can use to evaluate their facilities (12).
- Key in this regard is the treatment of transient passage or transient exposure, which is safe if of short duration despite exceeding uncontrolled environment standards, as long as controlled environment levels are maintained. EEPA urges the FCC to establish an effective way to apply transient exposure in the development of a revised OST Bulletin No. 65 (12).

Contact currents:

- Not addressed.

Controlled v. Uncontrolled environment:

- EEPA believes the definitions in the ANSI standard are clear. EEPA also agrees with the FCC's proposal to apply uncontrolled environment

standards to all transmitters and facilities located in residential areas or locations with unrestricted access (2).

- Similarly, EEPA agrees that the uncontrolled environment guidelines should apply to non-users of hand-held devices and users unless such persons are aware of the potential for exposure as a concomitant of employment (2).
- If the use of a hand-held device is not a concomitant of employment but the user is aware of the potential for exposure through education and training (including warning labels), the controlled environment guidelines should apply (2).
- EEPA also agrees that the guidelines for a controlled environment should apply to situations and radio services where exposure is incidental and transitory or occurs in areas where personnel are aware of potential exposure through warnings or instructions (2-3).
- EEPA supports those broadcasters that urge the FCC to adopt a rational interpretation of the "controlled" and "uncontrolled" environment provisions, and recommends that most broadcast related operations can be categorized as controlled environments. (12)

Measurement and compliance procedures:

- EEPA urges the Commission, in regulating maximum permissible exposure from induced and contact RF currents, to adopt a three-pronged approach for broadcasters and others required to certify compliance. Under this procedure, the FCC would adopt and incorporate in its revised Technical Bulletin charts and graphs that could be used to determine compliance with the RF exposure guides. If compliance could be readily confirmed, the FCC would allow regulatees to employ mathematical formulas to determine compliance. Actual measurements would be required only if compliance could be determined using these techniques (11).

Categorical exclusions:

- EEPA generally supports the FCC's proposed exclusion standards for low-power devices (3).
- Certain other hand-held portable radios, such as those typically used in Part 90 services, are appropriate for the controlled environment low-power exclusion because the user is aware of the potential for RF exposure (3).

- EEPA suggests that qualification for exclusion under the SAR guidelines should be allowed to be demonstrated through alternative methods rather than solely through laboratory measurements (4).
- EEPA urges the FCC to require that proof of compliance be submitted as part of the equipment authorization process rather than the licensing process. The showing should consist of an affirmative statement of compliance based on either actual SAR measurements made in an anatomically correct model or appropriate numerical analyses (5).
- The facilities and operations of microwave point-to-point radio services, land mobile (cellular) base stations, and mobile cellular radios and antennas should continue to be excluded. In the case of cellular base stations, where there is some risk that the new guidelines may be exceeded, it may be reasonable for the FCC to require certification that warning signs are posted (5-8).

Transitional Procedures:

- Not addressed.

State Preemption:

- Not addressed.

Other Issues:

- In support of broadcasters urging this argument, EEPA suggests that the FCC apply a policy of allowing the use of protective clothing in assuring compliance with RF guidelines.

**ELECTRONIC INDUSTRIES ASSOCIATION
CONSUMER ELECTRONICS GROUP**
Comments on RF Environmental Guidelines Amendments
(January 25, 1994)

Interest: The consumer electronics industry provides televisions, radios, videocassette records and camcorders, compact disc players, and a wide variety of other products (1).

Adoption of 1992 ANSI/IEEE Standard:

- Not addressed.

Induced currents:

- Not addressed.

Contact currents:

- Not addressed.

Controlled v. Uncontrolled environment:

- Not addressed.

Measurement and compliance procedures:

- Not addressed.

Categorical exclusions:

- The Commission should clarify the extent that certain Part 15 devices are categorically excluded from these rules (1-3).
- The Notice is silent on whether the proposed rules would or could apply to Part 15 devices that are not specifically licensed by the Commission for operation. The proposed rules should exclude intentional and unintentional radiators authorized by Part 15, including wireless video and audio distribution equipment, remote controlled toys, and other radiofrequency devices commonly used by consumers. Part 15 emission limitations essentially preclude human exposure to levels of radiofrequency energy proposed for adoption(2) .

- EIA/CEG seeks clarification about application of the proposed rules to 900 MHz frequency hopping and spread spectrum equipment licensed under Part 15. Section 15.247(b) of the Rules permits a maximum peak output power of the transmitter of 1 watt for these devices. However, the proposed categorical exclusion power limit at these frequencies in uncontrolled environments would be 0.7 watts. Other factors, such as permissible average time of occupancy, may persuasively support exemption of these devices from the proposed rules, but this needs further study (3).
- EIA/CEG supports the positions on hand-held radio telephones, cellular radios and other low-power devices described in the comments of the Telecommunications Industry Association (2).

Transitional procedures:

- Not addressed.

State preemption:

- Not addressed.

Other issues:

- Not addressed.

U.S. ENVIRONMENTAL PROTECTION AGENCY
Comments on RF Environmental Guidelines Amendments
(November 9, 1993)

Interest: The Environmental Protection Agency comments through its Office of Radiation and Indoor Air pursuant to Section 309 of the Clean Air Act.

Adoption of ANSI/IEEE Standard:

- The FCC should not adopt the 1992 ANSI/IEEE standard. There are serious flaws in the standard that call into question whether the proposed use of 1992 ANSI/IEEE is sufficiently protective. The following points address some of EPA's specific concerns (1-8).
- 1992 ANSI/IEEE undesirably allows a two-fold increase in the MPE at high frequencies (15 GHz to 300 GHz) above that permitted by the current FCC guideline (8).
- The two-level revised standard is not directly applicable to any population group but is applicable to exposure environments called controlled and uncontrolled environments that are not well defined and are discretionary. EPA disagrees with this approach (3-4).
- The 1992 ANSI/IEEE conclusion that there is no scientific data indicating that certain subgroups of the population are more at risk than others is not supported by NCRP and EPA reports (3).
- The thesis that the 1992 ANSI/IEEE recommendations are protective of all mechanisms of interaction is unwarranted because the adverse effects level in the 1992 ANSI/IEEE standard is based on a thermal effect (2).
- The FCC should consider the exposure criteria recommended by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86, "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," with the addition of the 1992 ANSI/IEEE limits for induced and contact RF currents, for the frequency range of 300 kHz to 100 MHz, to protect against shock and burn (5).

Induced currents:

- EPA favors adoption of the 1992 ANSI/IEEE standard in this respect (6).

Contact currents:

- EPA favors adoption of the 1992 ANSI/IEEE standard in this respect (6).

Controlled v. Uncontrolled environment:

- EPA opposes this concept because the controlled and uncontrolled environments "are not well defined" and are "discretionary" with the source operator (3-4).
- Guidelines should be described in terms of the populations to be protected -- the traditionally defined populations being workers and the public (3).
- EPA believes "less heat tolerant" groups include the elderly, infants, pregnant women, and people who are obese, have hypertension, or take drugs such as diuretics, tranquilizers, sedatives, or vasodilators that decrease heat tolerance (3).

Measurement and compliance procedures:

- Not addressed.

Categorical exclusions:

- EPA recommends that the two population groups, workers and the public, be used in the following suggested modifications to the FCC proposal regarding exposure to low power hand-held devices and amateur radio facilities. Non-users exposed to hand-held devices and amateur radio facilities should be considered as the public. Users of hand-held devices and amateur radio facilities should be considered as the public unless the user is operating a device as a concomitant of employment (6).

Transitional procedures:

- Not addressed.

State Preemption:

- Not addressed.

Other issues:

- While studies continue to be published describing biological responses to nonthermal ELF-modulated RF radiation, the effects information is not yet sufficient to be used as a basis for exposure criteria to protect the public against adverse human health effects (5).

- Pulse-modulated RF radiation can produce a response that is called "microwave hearing." This effect seems well established and probably results from very rapid thermoelastic expansion of the brain, creating a sound wave in the head. Conditions under which the auditory effect can be invoked in people with normal hearing should be avoided (6).
- Only a few chronic exposure studies of laboratory animals and epidemiological studies of human populations have been reported. The majority of these relatively few studies indicate no significant health effects are associated with chronic, low-level exposure to RF radiation. This conclusion is tempered by the results of a small number of reports suggesting potentially adverse health effects (cancer) may exist (4-5).
- The FCC should consider requesting that the NCRP revise its 1986 report to provide an updated, critical, and comprehensive review of the biological effects on RF radiation and recommendations for exposure criteria (8).

SHELDON L. EPSTEIN, ESQ.
Comments on RF Environmental Guidelines Amendments
(November 1, 1993; November 24, 1993)

Interest: Resident petitions in this docket for preemption of Wilmette, Illinois RF exposure resolution perceived to limit TVRO antennas and cellular transmitter sites. The November 24 filing replies to Wilmette's opposition.

Adoption of 1992 ANSI/IEEE Standard:

- The FCC should adopt the ANSI standard and issue an order preempting local governments from regulating FCC "licensed facilities and facilities of those who use services" (5).

Induced currents:

- Not addressed.

Contact currents:

- Not addressed.

Controlled v. Uncontrolled environment:

- Not addressed.

Measurement and compliance procedures:

- Not addressed.

Categorical exclusions:

- Not addressed.

Transitional procedures:

- Not addressed.

State preemption:

- Epstein's petition represents that he is a long-time resident of Wilmette, a member of the Illinois bar, a practicing electrical engineer and Senior Member of IEEE, a

holder of FCC radio licenses, a "customer of corporations which offer radio communications to the public" under FCC licenses, and a TVRO satellite station user (1).

- The petition asserts Wilmette enacted its resolution "to prohibit or regulate radio station structures and transmissions in total disregard of the Commission's" authority by limiting antennas to "6 feet in diameter," threatening enforcement, and bringing enforcement actions (2).
- The petition asserts Wilmette has litigated against Ameritech in an effort to terminate use of a "cell site it had erected" in Wilmette and has resisted the efforts of FCC licensees to erect more transmitters in Wilmette (2).
- It presents Epstein's account of the facts surrounding adoption of the Wilmette RF exposure resolution (2-5).
- The November 24 reply describes further facts establishing Wilmette TVRO rules enforcement, argues Wilmette should recognize that the FCC regime limits its powers, and notes that the Wilmette authorities themselves represent that the RF exposure "limits established by the Resolution are by far the most stringent which exist anywhere" (1-3).
- Epstein argues that, while Wilmette's proposition that the control of public exposure to RF radiation is a uniquely local problem is debatable, an affirmative view still would not support the conclusion that the standard of public exposure to RF radiation is a uniquely local problem. Here, Wilmette errs in extrapolating its responsibility to its presumed capability. In his judgment, Wilmette's role should not be to establish a local standard; it should be to implement effectively a national standard (4).

Other issues:

- Not addressed.

THE ERICSSON CORPORATION
Comments on RF Environmental Guidelines Amendments
(January 25, 1994)

Interest: Manufacturer of radio base station equipment as well as portable and mobile voice and data terminals for the Private Land Mobile and Public Land Mobile services.

Adoption of 1992 ANSI/IEEE Standard:

- Supports adoption of the proposed ANSI/IEEE standard for RF exposure but recommends certain modifications to the Notice's proposals. (2, 4)
- The ANSI/IEEE standard need not be reevaluated as to modulated carriers and other exposure guidelines. (12-13)

Induced currents:

- Not addressed.

Contact currents:

- Not addressed.

Controlled v. Uncontrolled environment:

- Private land mobile devices should be treated as being in a controlled environment. (13-14)

Measurement and compliance procedures:

- To the extent that the FCC adopts that portion of the ANSI/IEEE standard that requires radiated power to be measured, Ericsson believes the FCC should adopt specific measurement procedures that all manufacturers can follow. (6)
- Given the dynamics of SAR determination techniques, the FCC should adopt uniform measurement standards and testing procedures that can be followed by the telecommunications industry, specific to the type of equipment to be used as well as the environment under which such standards and procedures should be conducted. (6-8)

- Submits that the FCC should adopt a rule that specifically allows compliance to be demonstrated in accordance with other methods that prove to be more reliable from a scientific standpoint. (8-9)
- If the FCC does not have the requisite expertise or resources to promulgate such standards, TIA may serve as a focal point for the development of necessary standards. (9)
- Requests that the FCC ask the C95.1 committee to develop standards that allow a low power exclusion when the radiating structure is "maintained" less than 2.5 cm from the body. (10)
- The FCC should request that an ANSI accredited standards organization of expert scientists study the requisite SAR levels for terminals in the PCS band and grant an exclusion to all low power hand-held devices in the 2 GHz PCS band that demonstrate operation at power levels below those in the revised standard until the results of the study are completed. (11)

Categorical exclusions:

- Because experts agree that the ANSI/IEEE standard is very conservative and because there has been no demonstration that harm to humans is likely due to RF exposure from such facilities, Ericsson submits that the categorical exclusions previously provided for facilities licensed under Parts 21, 22, 23, 90 and 94 should be continued. (16-17)

Transitional procedures:

- The future date for compliance with the new standard should be two years after the FCC adopts either a definitive SAR measurement standard or an equivalent standardized numerical analysis technique. (14-15)
- The FCC should grandfather any device that has been type accepted or manufactured prior to a future date certain, such as two years. (14-15)
- Subsequent to this date, applicants should be required to affirm that either the product for which the equipment authorization is sought is excluded from the ANSI/IEEE standard due to its power and/or frequency or that the product has been approximately tested or analyzed for SAR and found to be within the standard's limits. (15)

State preemption:

- Requests that the FCC's rules and regulations specifically preempt state or local regulation in this regard. (17-18)

Other issues:

- Not addressed.

U.S. FEDERAL AVIATION ADMINISTRATION
Comments on RF Environmental Guidelines Amendments
(August 20, 1993)

Interest: FAA comments through its Spectrum Engineering and Policy Division.

Adoption of 1992 ANSI/IEEE Standard:

- FAA objects to the establishment of two standards for the management of exposure to radio frequency radiation and will continue to use the more conservative "uncontrolled environment" criteria for all areas within FAA's responsibility (1).

Induced currents:

- Not addressed.

Contact currents:

- Not addressed.

Controlled v. Uncontrolled environment:

- Not addressed.

Measurement and compliance procedures:

- Not addressed.

Categorical exclusions:

- Not addressed.

Transitional procedures:

- Not addressed.

State preemption:

- Not addressed.

Other issues:

- Not addressed.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Comments on RF Environmental Guidelines Amendments
(November 10, 1993)

Interest: Comment submitted by the Center for Devices and Radiological Health of the Food and Drug Administration, which has related regulatory responsibilities but declares no specific interest.

Adoption of ANSI/IEEE Standard:

- Replacement of the ANSI/IEEE 1982 standard with their 1992 standard generally "is appropriate and will provide a greater level of protection to the general public." Notes with favor "lower maximum permissible exposures for persons in 'uncontrolled environments'," and especially concurs in the FCC proposal that "hand-held portable devices" must meet "uncontrolled environment requirements" (1).
- Feels it is unclear what "biological effects and exposure conditions are addressed by the standard." "Although the current state of scientific knowledge does not enable us to offer a specific alternative to the exposure levels in the new standard, we do not believe this standard addresses the issue of long-term, chronic exposures of RF fields," which FDA feels is needed given "studies that suggest an association between chronic low level exposures and acceleration of cancer development." Recommends that "new research be closely monitored for possible evidence that the levels in the 1992 guideline may need to be reduced" (1-2).

Induced currents:

- Not addressed.

Contact currents:

- Not addressed.

Controlled v. Uncontrolled environment:

- Not addressed.

Measurement and compliance procedures:

- Given FDA experience suggesting personnel subject to standards typically have measurement difficulties, FDA recommends "FCC specifically endorse the procedures specified" in ANSI C95.3-1992. Compliance with the exposure